

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

OWEN OIL TOOLS LP

v.

HUNTING TITAN, LTD., et al.

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Case No. 2:12-CV-34-JRG-RSP

**CLAIM CONSTRUCTION  
MEMORANDUM AND ORDER**

On January 22, 2013, the Court held a hearing to determine the proper construction of the disputed claim terms in U.S. Patent No. 8,079,296. After considering the arguments made by the parties at the hearing and in the parties' claim construction briefing (Dkt. Nos. 43, 48, 50, and 52), the Court issues this Claim Construction Memorandum and Order.

**APPLICABLE LAW**

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *See id.* at 1313. *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. Courts give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the entire patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

The claims themselves provide substantial guidance in determining the meaning of particular claim terms. *Phillips*, 415 F.3d at 1314. First, a term’s context in the asserted claim can be very instructive. *Id.* Other asserted or unasserted claims can also aid in determining the claim’s meaning because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term’s meaning. *Id.* For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id.* at 1314–15.

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficos N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms, give a claim term a different meaning than the term would otherwise possess, or disclaim or disavow the claim scope. *Phillips*, 415 F.3d at 1316. In these situations, the inventor’s lexicography governs. *Id.* The specification may also resolve ambiguous claim terms “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” *Teleflex, Inc.*, 299 F.3d at 1325. But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. The prosecution history is another

tool to supply the proper context for claim construction because a patent applicant may also define a term in prosecuting the patent. *Home Diagnostics, Inc., v. Lifescan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) (“As in the case of the specification, a patent applicant may define a term in prosecuting a patent.”).

Although extrinsic evidence can be useful, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a term’s definition are entirely unhelpful to a court. *Id.* Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.*

## DISCUSSION

### 1. Construction of “Booster” / “Booster Element”

Term	Owen Oil Tools’ Proposal	Hunting Titan’s Proposal
“booster (element)” Claims 6, 11, and 15	“A small metal tube containing secondary high explosive that is crimped onto the end of a detonating cord.”	“An element for increasing power or effectiveness, such as a lead azide element.”

The Court finds that a “**booster**” or “**booster element**” means “**an explosive material that releases energy upon detonation.**” The term first appears in claim 6, which depends upon independent claim 1:

1. An apparatus for perforating a subterranean formation, comprising:
  - a first perforating gun that is configured to perforate the subterranean formation;
  - an activator responsive to the firing of the first perforating gun, wherein the activator includes an energetic material, a pin positioned adjacent to the energetic material, and an igniter positioned adjacent to the pin, wherein a shock wave generated by the energetic material propels the pin into the igniter;
  - a fuse element detonated by the activator; and
  - a second perforating gun that is configured to perforate the subterranean formation, the second perforating gun having a detonator activated by the fuse element.
6. The apparatus according to claim 1 wherein the detonator is a *booster element* formed of an energetic material.

The parties agree that an “energetic material” is “a material that can release energy through detonation, deflagration, or burning, including explosives, propellants, and pyrotechnics.” (Joint Claim Construction Statement at 2, Dkt. No. 39.) The specification teaches that the booster element may be an explosive. *See* ‘296 Pat. at 4:49-54 (referring to an “explosive booster charge”) and 5:11-15 (referring to “the detonation force of the booster charge”). However, in each of the claims where the terms booster or booster element appears, the term is used in conjunction with a detonator, which the parties agree means a “device

containing an initiating or primary explosive that is used to initiate an explosion.” (Joint Claim Construction Statement at 3.) Although an energetic material is not limited to an explosive, the Court finds that the surrounding claim language requires the booster or booster element to be made of an explosive.

Owen Oil Tools’ proposed construction is rejected because it improperly imports limitations from the preferred embodiment. Hunting Titan’s proposed construction is rejected because there is no support for its construction in the intrinsic evidence, and in particular there appears to be no support for specifically reciting “lead azide.”

## 2. Construction of “Activator”

Term	Owen Oil Tools’ Proposal	Hunting Titan’s Proposal
“activator” Claims 1, 8, 11, 12, 15, 16, and 19	Term is defined by the claim language itself and does not need to be construed.  In the alternative: “a device that includes energetic material and is responsive to the firing of a perforating gun.”	Indefinite.  In the alternative: “a device that couples, initiates, or controls some aspect of a perforating sequence.”

The Court finds that the term **“activator” does not require construction** because the term is adequately defined by the structure recited in the claim. Claim 1 of the ‘297 patent recites:

1. An apparatus for perforating a subterranean formation, comprising:
  - a first perforating gun that is configured to perforate the subterranean formation;
  - an activator* responsive to the firing of the first perforating gun, *wherein the activator includes an energetic material, a pin positioned adjacent to the energetic material, and an igniter positioned adjacent to the pin*, wherein a shock wave generated by the energetic material propels the pin into the igniter;
  - a fuse element detonated by the activator; and

a second perforating gun that is configured to perforate the subterranean formation, the second perforating gun having a detonator activated by the fuse element.

As can be seen from the emphasized claim language, the claim uses the term “activator” to refer to a structure comprising (1) an energetic material, (2) a pin, and (3) an igniter. The claim describes the relationship of the activator’s constituent elements to one another, and how the activator functions. It is clear from the claim language itself that the term is not indefinite. The same analysis applies to independent claims 8, 12, and 16 because those claims use similar operative claim language.

The Court rejects Hunting Titan’s argument that the term “activator” is indefinite because the claim language specifies what the activator limitation includes, and therefore the term “activator” itself does not add any additional limitations to the claims. (*See* Resp. Br. at 5-8.) Hunting Titan’s proposed alternative construction is rejected because it would replace the clear, structural definition provided by the claim language itself with a functional definition drawn loosely from the specification.

### 3. Construction of “Wherein the Activator Includes an Energetic Material”

Term	Owen Oil Tools’ Proposal	Hunting Titan’s Proposal
“wherein the activator includes an energetic material” Claims 1, 8, and 16	Only the term “energetic material” needs to be construed. This phrase is otherwise defined by the claim language itself and does not need to be construed.  In the alternative: “the activator includes a material that can release energy through detonation, deflagration, or burning, including explosives, propellants, and pyrotechnics.”	“Wherein an energetic material is associated with the activator.”

The Court agrees with Owen Oil Tools that the phrase **“wherein the activator includes an energetic material” does not require construction** apart from the terms “activator” and “energetic material,” which have been separately construed or have an agreed construction.

Hunting Titan’s proposed construction is rejected because it merely substitutes the word “includes” with “associated with.” Even if Hunting Titan is correct that the specification describes embodiments where the activator is “associated with” an energetic material, that fact alone does not warrant broadening the scope of the claims to be commensurate with the scope of the specification, particularly where the patentee chose to use the narrower term “includes” in the claims.

#### 4. Construction of “Explosively Coupling” and “Energetically Coupling”

Term	Owen Oil Tools’ Proposal	Hunting Titan’s Proposal
“explosively coupl(ing)(ed)” Claims 2, 5, and 11	No construction necessary.  In the alternative: “connect(s)(ed)(ing) through an explosion.”	Indefinite.  In the alternative: “coupling(ed).”
“energetically couple(s)(ed)(ing)” Claims 5, 8, 12, 15, and 19	No construction necessary.  In the alternative: “connect(s)(ed)(ing) through a transfer of energy.”	Indefinite.  In the alternative: “couple(s)(ed)(ing).”

The Court finds that the terms “**explosively coupling**” and “**energetically coupling**” do **not require construction** and are not indefinite because the terms refer to a structure set forth in the claims. Hunting Titan argues that the terms are indefinite. A claim term is indefinite if it is “not amenable to construction” or “insolubly ambiguous.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005). “[T]he definiteness of claim terms depends on whether those terms can be given any reasonable meaning.” *Id.* The meaning of the claim terms here can be ascertained from the specification and the claim language. The specification provides the following description of an “energetic coupling” depicted in Figure 5:

In embodiments, the time delay mechanism 204 may include a housing 242 and one or more fuse element(s) 244 that is/are energetically coupled to an adjacent gun (e.g., gun 62b). An exemplary energetic coupling may include a booster charge 207 that is coupled to a detonator cord 108.

‘296 Pat. at 7:19-23.

Moreover, claim 8 specifically recites how “energetically coupling” is accomplished using a particular structure:

[E]nergetically coupling the first perforating gun and the second perforating gun with:

an activator responsive to the firing of the first perforating gun, wherein the activator includes an energetic material, a pin positioned adjacent to the energetic material, and an igniter positioned adjacent to the pin, wherein a shock wave generated by the energetic material propels the pin into the igniter;

and a fuse element detonated by the activator . . . .

‘296 Pat. at 9:45-53. A person of ordinary skill in the art would appreciate that the term “energetically coupling” refers to this structure. With respect to claim 11, the term refers to another particular embodiment of the arrangement, but where an explosive is used. The same analysis applies to claims 12 and 15. Claims 5 and 19 depend upon independent claims 1 and 16 respectively. Although claims 1 and 16 do not recite the term “energetically couple[s],” both claims recite the same structure or arrangement that the other claims refer to as an “energetically coupling.”



## 5. Construction of “Frangible Element Connecting the Pin to the Housing”

Term	Owen Oil Tools’ Proposal	Hunting Titan’s Proposal
“frangible element connecting the pin to the housing” Claims 4, 12, and 16	The phrase does not need construction, and is defined by the claim language itself.  In the alternative: “component configured to break in response to the shock wave generated by the energetic material connecting the pin to the housing.”	“A breakable element, such as a tube, shear pin, or shear stud, that prevents the pin from moving relative to the housing.”

The Court finds that the term “**frangible element connecting the pin to the housing**” requires **no construction**. In each instance that the term “frangible element” appears in the claims, the surrounding claim language provides a clear definition of the term. The definition of the term “frangible element” provided in claim 4 is representative:

4. The apparatus according to claim 1 further comprising a housing configured to receive the pin, and wherein the pin includes a frangible element connecting the pin to the housing, *wherein the frangible element is configured to break in response to the shock wave generated by the energetic material.*

Hunting Titan’s proposed construction seeks to import examples of frangible elements found in the specification (e.g. tube, shear pin, or shear stud), and to include language describing the function of the frangible element (preventing “the pin from moving relative to the housing”). The Court is not persuaded that it is necessary to import these additional limitations to make the claim language or scope any clearer, and they are therefore rejected.

## 6. Construction of “Firing Head”

Term	Owen Oil Tools’ Proposal	Hunting Titan’s Proposal
“firing head” Claims 7, 12, and 14	The phrase does not need to be construed, and is defined by the claim language.  In the alternative: “device that converts a firing signal to a detonation.”	“A device that couples, initiates, or controls some aspect of a perforating sequence.”

The Court finds that the term **“firing head”** means **“a device for causing a perforating gun to fire.”** The Court’s construction is based upon the language of claims 7, 12, and 14. Claim 7 specifies that the “detonator” in claim 1 is a “firing head.” The parties agree that a “detonator” is a “device containing an initiating or primary explosive that is used to initiate an explosion.” (Joint Claim Construction Statement at 3.) Claim 12 specifies that the second gun has a “firing head” responsive to the detonation of the first gun and is capable of detonating the igniter. Thus, claim 12 uses the term “firing head” to refer to the device that causes the perforating gun to fire. Claim 14 uses the term in a similar manner, and states that the first gun is fired by detonating a firing head of the first gun.

The Court rejects Hunting Titan’s proposed construction because it would give the same meaning to different claim terms (“firing head” and “activator”), and Hunting Titan has not offered evidence sufficient to rebut the presumption against a claim construction that gives different terms the same meaning. *See Seachange Int’l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1368-69 (Fed. Cir. 2005). Moreover, the phrase “some aspect of a perforating sequence” in Hunting Titan’s proposed construction is too broad and generalized to provide meaningful guidance to the jury. Owen Oil Tool’s alternative construction is rejected because it injects the term “firing signal,” which does not appear in the claims and would likely create confusion.

## **CONCLUSION**

The Court adopts the above constructions. The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

**SIGNED this 21st day of May, 2013.**

  
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ROY S. PAYNE  
UNITED STATES MAGISTRATE JUDGE